

IN THE CLAIMS

Please cancel claims 3 and 18-26, without prejudice or disclaimer.

Please rewrite claims 1, 2, 4-6, 8, 11, 13-14, 16, and 27, as follows:

1. (Once Amended) Swelled dielectric cellular electret film, said cellular film containing flat gas bubbles, wherein the film contains partial discharges inside the film produced in the gas bubbles to achieve improved electrical properties.
2. (Once Amended) Swelled dielectric cellular electret film according to claim 1, wherein the film has partial discharges produced in the gas bubbles and the charges are caused to move into the dielectric material of the film as a result of the film being provided with a large internal unipolar charge created by charging the film by means of an electric DC field intensive enough to produce partial discharges in the gas bubbles and to cause the charges to move into the dielectric material of the film.
4. (Once Amended) Swelled dielectric cellular electret film according to claim 1, wherein the film has at least one film layer foamed to be of full-cell type, and wherein the film has been oriented by stretching it in two directions.
5. (Once Amended) Dielectric cellular electret film, said cellular film containing flat gas bubbles, wherein the film is a swelled dielectric cellular electret film; wherein the film has at least one film layer foamed to be of full-cell type, wherein the film has been oriented by stretching it in two directions, and wherein the film contains partial discharges inside the film produced in the gas bubbles to achieve improved electrical properties.

6. (Once Amended) Transducer element having one or several swelled dielectric cellular electret films, said cellular films containing flat gas bubbles, wherein the film contains partial discharges inside the film produced in the gas bubbles to achieve improved electrical properties.
8. (Once Amended) Transducer element according to claim 6 comprising at least one cellular electret film, at least one signal electrode and at least two ground electrodes, wherein the transducer element is a electret film, containing a permanent electric charge, the film being a cell-type electret film, and the transducer part has a laminated structure, where at least the signal electrode is disposed on the surface of the electret film or another dielectric film.
11. (Once Amended) Self-adhesive film self-adhesive by virtue of an electrostatic force comprising a swelled dielectric cellular electret film, said cellular films containing flat gas bubbles, wherein the film contains partial discharges inside the film produced in the gas bubbles to achieve improved adhesive properties.
13. (Once Amended) Swelled film of dielectric material, self-adhesive by virtue of an electrostatic force, which film contains gas bubbles preferably of a flat shape, wherein, to achieve an adhesive quality of the film, the film is given a large internal unipolar charge, which is created by charging the film by means of an electric field intensive enough to produce partial discharges in the gas bubbles and to cause the charges to move into the dielectric material of the film.

14. (Once Amended) Film as defined in claim 13, wherein the film is coated with a slightly adhesive layer.

16. (Once Amended) Film as defined in claim 13, wherein, to increase the net charge created inside the film, the film is doped with charge binding additives.

27. (Once Amended) A self-adhesive swelled cell type dielectric film, self-adhesive by virtue of an electrostatic force, said swelled cell type film lying flat on a flat surface without manipulation, said swelled cell type film containing flat gas blisters, and said film containing partial discharges inside the film produced in the gas blisters to achieve an adhesive quality of the film.

Please add new claims 34-66 as follows:

--34. Dielectric cellular electret film, said cellular film containing flat gas bubbles, wherein the film contains partial discharges inside the film produced in the gas bubbles to achieve improved electrical properties, the film not being coated with an electrically conductive layer.--

--35. Dielectric cellular electret film according to claim 34, wherein the film has partial discharges produced in the gas bubbles and the charges are caused to move into the dielectric material of the film as a result of the film being provided with a large internal unipolar charge created by charging the film by means of an electric DC field intensive enough to produce partial discharges in the gas bubbles and to cause the charges to move into the dielectric material of the film.--

--36. Dielectric cellular electret film according to claim 34, wherein the film is a swelled dielectric cellular electret film.--

--37. Dielectric cellular electret film according to claim 34, wherein the film has at least one film layer foamed to be of full-cell type, and wherein the film has been oriented by stretching it in two directions.--

--38. Dielectric cellular electret film, said cellular film containing flat gas bubbles, wherein the film is a swelled dielectric cellular electret film; wherein the film has at least one film layer foamed to be of full-cell type, wherein the film has been oriented by stretching it in two directions, and wherein the film contains partial discharges inside the film produced in the gas bubbles to achieve improved electrical properties, the film not being coated with an electrically conductive layer.--

--39. Transducer element having one or several swelled dielectric cellular electret films, said cellular films containing flat gas bubbles, wherein the film contains partial discharges inside the film produced in the gas bubbles to achieve improved electrical properties, the film not being coated with an electrically conductive layer.--

--40. Transducer element according to claim 39, wherein the film has partial discharges produced in the gas bubbles and the charges are caused to move into the dielectric material of the film as a result of the film being provided with a large internal unipolar charge created by

charging the film by means of an electric DC field intensive enough to produce partial discharges in the gas bubbles and to cause the charges to move into the dielectric material of the film.--

--41. Transducer element according to claim 39, comprising at least one cellular electret film, at least one signal electrode and at least two ground electrodes, wherein

the transducer element is a electret film, containing a permanent electric charge,

the film being a cell-type electret film, and

the transducer part has a laminated structure, where at least the signal electrode is disposed on the surface of the electret film or another dielectric film.--

--42. Transducer element according to claim 41, wherein the transducer has a unitary laminated structure, where the signal and ground electrodes have been disposed on the surface of the dielectric films and continue unitary from the transducer part as a connection element part, whereby the electrodes extend from the transducer part as connection element part for connecting the transducer to a signal processing device.--

--43. Transducer element according to claim 41, wherein the element has at least two transducer film elements, at least one of the elements having different electric charges on their surfaces.--

--44. Self-adhesive film self-adhesive by virtue of an electrostatic force comprising a dielectric cellular electret film, said cellular films containing flat gas bubbles, wherein the film contains

partial discharges inside the film produced in the gas bubbles to achieve improved adhesive properties, the film not being coated with an electrically conductive layer.--

--45. Self-adhesive film according to claim 44, wherein the film has partial discharges produced in the gas bubbles and the charges are caused to move into the dielectric material of the film as a result of the film being provided with a large internal unipolar charge created by charging the film by means of an electric DC field intensive enough to produce partial discharges in the gas bubbles and to cause the charges to move into the dielectric material of the film.--

--46. Film of dielectric material, self-adhesive by virtue of an electrostatic force, which film contains gas bubbles preferably of a flat shape, wherein, to achieve an adhesive quality of the film, the film is given a large internal unipolar charge, which is created by charging the film by means of an electric field intensive enough to produce partial discharges in the gas bubbles and to cause the charges to move into the dielectric material of the film, the film not being coated with an electrically conductive layer.--

--47. Film as defined in claim 46, wherein the film is coated with a slightly adhesive layer.--

--48. Film as defined in claim 46, wherein, to adjust the adhesion of the film, one or both of its surfaces are subjected to an AC corona treatment before charging.--

--49. Film as defined in claim 46, wherein, to increase the net charge created inside the film, the film is doped with charge binding additives.--

--50. Film as defined in claim 46, wherein certain areas of the film contain a positive charge while the other areas have a negative charge.--

--51. Procedure for manufacturing cellular dielectric electret film containing flat gas bubbles, wherein, to achieve an improved quality of the film, the film is charged by means of an electric field intensive enough to produce partial discharges in the gas bubbles and to cause the charges to move into the dielectric material of the film, creating a large unipolar charge inside the film, the film not being coated with an electrically conductive layer.--

--52. Procedure as defined in claim 51, wherein the film is subjected to an AC corona treatment before charging.--

--53. Procedure as defined in claim 52, wherein the adhesion of the film is adjusted by adjusting the intensity of the AC corona treatment or the charging or both.--

--54. Procedure as defined in claim 51, wherein the intensity of the charging electric field is over 100MV/m, and preferably in the range of 100-200 MV/m.--

--55. Procedure for manufacturing a film of dielectric material self-adhesive by virtue of an electrostatic force, said film lying flat on a flat surface without manipulation, said film containing gas blisters wherein, to improve an adhesive quality of the film, the film is charged by means of an electric DC field intensive enough to produce partial discharges in the gas blisters

and to cause the charges to move into the dielectric material of the film, creating a large unipolar charge inside the film, the film not being coated with an electrically conductive layer.--

--56. Procedure as defined in claim 55, wherein the film is subjected to an AC corona treatment before charging.--

--57. Procedure as defined in claim 56, wherein the adhesion of the film is adjusted by adjusting the intensity of the AC corona treatment or the charging or both.--

--58. The procedure according to claim 55, wherein the intensity of the charging electric DC field is equal to or greater than 100MV/m.--

--59. The procedure according to claim 58, wherein the intensity of the charging electric DC field is in the range of 100-200MV/m.--

--60. A self-adhesive cell type dielectric film, self-adhesive by virtue of an electrostatic force, said cell type film lying flat on a flat surface without manipulation, said cell type film containing flat gas blisters, and said film containing partial discharges inside the film produced in the gas blisters to achieve an adhesive quality of the film, the film not being coated with an electrically conductive layer.--

--61. A self-adhesive cell type dielectric film according to claim 60, wherein said partial discharges move into the dielectric material of the film, the film being provided with a large internal unipolar charge created by charging the film by means of an electric DC field intensive

enough to produce partial discharges in the gas blisters and to cause the charges to move into the dielectric material of the film.--

--62. Film as defined in claim 60, wherein to adjust the adhesion of the film, one or both of its surfaces are subjected to an AC corona treatment before charging.--

--63. Film as defined in claim 60, wherein the film is coated with a adhesive sticky layer.--

--64. Film as defined in claim 60, wherein to increase a network charge created inside the film, the film is doped with charge binding additives.--

--65. Film as defined in claim 60, wherein certain areas of the film contain a positive charge while the other areas have a negative charge.--

--66. Film as defined in claim 61, wherein the charge binding additive is ferrochloride.—

R E M A R K S

Claims 8, 13, 14, 16 and 27 have been rewritten to overcome the objection to claim 13, and the rejection of claims 8-10, 13-17, and 27-33 under 35 U.S.C. §112, second paragraph.

Claims 1-10 were rejected under 35 U.S.C. §102(b) as being anticipated by Kirjavainen, U.S. Patent No. 4, 654,546. Claims 11-14, 17, 27, 28 and 30-32 were rejected under 35 U.S.C. §102(b) as being anticipated by or in the alternative under 35 U.S.C. §103(a) as obvious over